AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 14

2. AMENDMENT/MODIFICAITON NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicble)*
002	07/08/2010	NM-10-01640	

6. ISSUED BY CODE	7. ADMINISTERED BY *(If other than Item 6)* CODE
Federal Aviation Administration Acquisition Management Group, ANM-52 1601 Lind Ave SW Renton, WA 98057	

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*	(X)	9A. AMENDMENT OF SOLICIATION NO.
	☒	DTFANM-10-R-00045
		9B. DATED *(SEE ITEM 11)* 06/15/2010
	☐	10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED *(SEE ITEM 13)*
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a)By completing items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPIRATION DATA *(If required)*

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
☐	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
☐	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation date, etc.*) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
☐	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
☐	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (*Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

See page 2 through 7 for answers to questions received.

See page 8 through 14 for addition of Specification Section 10 20 00 - Louvers and Vents.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*	16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*

15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		*(Signature of Contracting Officer)*	

I. The above referenced solicitation is amended as follows:

- Receipt of Offers: The date for receipt of offers remains **July 29, 2010**.

- The following changes are made to the Solicitation, Specifications and Drawings:

Addition of Specification Section 10 20 00 – Louvers and Vents (attached).

- Answers to questions received from offerors:

1. Question: Paragraph 3.1-1 of Part II – Section I, documents incorporated by reference, lists clause 3.2.2.3-47, which requires that the Contractor obtain all applicable licenses and comply with State laws applicable to the work. Paragraph 624.031 (8) of Nevada Revised Statutes limits exceptions from the requirement to hold a Contractor's license to projects which are fully funded and located on land owned by the Federal government. Our understanding is that the project is located on land owned by Clark County or Clark County Department of Aviation and, that as such, Contractors and Subcontractors on this project will be required to hold a Nevada Contractors license in order to work on this project. Is that correct?

Answer: Federal contractors are not required to be licensed by the state in which they are performing work.

2. Question: Paragraph 3.1-1 of Part II – Section I, documents incorporated by reference, lists clause 3.3.2-1, "FAA Cost Principles". As this is a fixed price contract project our understanding is that the cost principles would apply to changes or modifications, but would not apply to base contract work. Is our understanding correct?

Answer: That is correct.

3. Question: The louvers scheduled on sheet M603 are not referenced in the specifications. Is there a separate specification for these louvers?

Answer: Add attached Specification Section 10 20 00 LOUVERS AND VENTS.

4. Question: Sheet M902 CHW Riser Diagram FIRST LEVEL TOWER only indicates (3) FCU's, whereas sheet M106 FLR Pln. FIRST LEVEL TOWER Indicates (4) FCU's; which is correct? Or is the HHW diagram M901 which indicates (4) correct and the fourth FCU does not get chilled water?

Answer: Plan M902 and schedule are correct. – 4 fan coils on level one. See note 4 on M902, chilled and hot water to fan coil.

5. Question: The FCU's shown on sheet M101 Base Building are not shown on sheet M901 HHW Riser Diagram or sheet M902 CHW Riser Diagram. Please clarify design intent.

Answer: Fan coils shown on plan are included in project. Please see note on M902 "To additional fan coil units at level 1". M901 is similar.

6. Question: Sheet S113 does not indicate an opening through the exterior wall between col. 9 & 10 for the exhaust shown on A204. Is the coordination note #2 on S113 adequate to convey the structural opening requirements?

Answer: Yes, the coordination note #2 on S113 adequately conveys the structural opening requirements. In addition, see detail F3/S510 on the typical ATCT concrete typical detail sheet F3/S510 for typical opening detail.

7. Question: Sheet M502 detail G7 indicates the chillers are installed on top of a steel support member that sits on a concrete base/pad and both support elements say see structural. Please indicate what dwg(s) these details can be found on as we are unable to locate them. Note that the chiller specification 23-64-26-10 indicates that the chiller installation is anchored to a concrete pad only?

Answer: B4/S004

8. Question: Sheet M111 - Rm 1911 Ceiling Return Grille shown indicates a 24X12 CG1 on the call-out next to it. But the size drawn appears to be a 24X24 and matches the same grille shown in rm 1909 and is listed as a 24X24. Which size should be priced? Size will also affect the boot size.

Answer: Return grille in room 1911 is a 24x24.

9. Question: Refer to sheets E189 – Notes B,C & D Indicates to "Refer to Johnson Controls Drawings". Please provide the referenced documents.

Answer: Delete Notes B, D, & D on Sheet E189. General Note A accurately describes Contractor's responsibility for the security system and the requirements are called out on the drawings.

10. Question: Is the "Monaco" Radio Repeater shown on sheet F-126, General Note Item # Z, compatible with the local Emergency response system?

Answer: No. The radio repeater needs to be compatible with Motorola Model XTS 5000 radios. The radio repeater model information will be provided in a future addendum.

11. Question: Refer to Specification 26-05-36 – Cable Trays for Electrical Systems. This section does not indicate if the "cable tray" is enclosed or open; please indicate the type of trays and locations required.

Answer: All cable trays shall be open.

12. Question: Refer to drawing E126/G8. Is a power outlet required for the vending machine (NIC) located in room 1912 on the 19th Level break room of the ATCT?

Answer: Provide two (2), 20 amp, duplex, GFI receptacles on the west wall of room 1911 for vending machines (NIC). Locate receptacles 2' from each end of the wall. Each receptacle shall be on a dedicated circuit, use circuits NPLA-CAB 49 and 51 and update panelboard legend.

13. Question: Refer to drawing M-111/C3. Location of thermostat for TU8 in Room 1912 on level 19 appears to be in the same location as the vending machine (NIC); is this correct?

Answer: Thermostat to remain on furred wall. Vending machine to be located out in the field and moved further south and away from the thermostat.

14. Question: Refer to drawing P110/C3. Is a drain or water required for the vending machine (NIC) located in room 1912 on the 19th level break room of the ATCT?

Answer: No water or drain at vending machines.

15. Question: General Note A-15 on drawing C001 indicates Contractor is to obtain required permits and referenced FAR clauses require that Contractor comply with local laws. Our understanding is the project is located on property owned by Clark County or the Clark County Department of Aviation and that, as such, a Clark County building permit may be required. Is this project exempt from Clark County building permit requirements and, if not, can you provide us with a Plan Check receipt number so we can obtain an accurate fee quote from Clark County.

Answer: The project is exempt from the Clark County Development Services Building Permit requirement.

16. Question: Paragraph 3.3.D of specification section 310000 and General Note A.17 on drawing C001 require that Contractor comply with recommendations given in "Results of Geotechnical Exploration Air Traffic Control Tower and Terminal Radar Approach Control Building McCarran International Airport Clark County, Nevada" by Kleinfelder dated July 8, 2009. A copy of this document does not appear to have been issued with other bid documents; please provide at your earliest opportunity.

Answer: Refer to Appendix I; Geotechnical Report, located at the end of Volume V.

17. Question: Is the continuous hat channel reference in Key Note #5 necessary? The continuous air space can be maintained without the hat channel. If the hat channel is required, it is to be installed as backing for the furred wall at 2'0" on center or 1 single row?

Answer: Sheet A-501; The hat channels are required and are to be installed at 24" oc horizontally.

18. Question: Drawings A606, A607 and A608 Note C indicate that the "All Exposed Steel, Columns, Beams and Decking are to receive fireproofing". But in other areas such as Drawing A121 General Note B indicates that all exposed steel is to be Painted. Please clarify design intent.

Answer: Change General Note C on sheets A606 and A607 to read "PAINT ALL EXPOSED STEEL, COLUMNS, BEAMS AND DECKING, UNLESS NOTED OTHERWISE." Change General Note Con A608 to read "PAINT ALL EXPOSED DECKS, AND PROVIDE FIREPROOFING AS INDICATED ON ALL EXPOSED COLUMNS AND BEAMS."

19. Question: Please clarify which door openings are to be blast resistant.

Answer: All door openings to the exterior on the Base building are to be blast resistant per the design criteria provided in the drawings and specifications.

20. Question: Sheet S140 calls out section G8/S540 at the garage ramp. G8/S540 does not exist. Please clarify design intent.

Answer: Change reference to F8/S540.

21. Question: Refer to sheet S140. Footing F11 under the two sheer walls in the center of the parking garage appears to have an additional 1 foot of footing at each end.

*Answer: The 32'-0" dimension shown on the drawing is correct. Revise the footing schedule for footing F11 to change the size from 18' x 30' x 3.5' to 18' x **32'** by 3.5'*

22. Question: Keyed note 2 on sheet S141 states to see A4/S541 for reinforcing. A4/S541 does not exist. Please clarify design intent.

Answer: Change reference to A5/S545.

23. Question: Keyed note 9 on sheet A205 states to "see civil" for vehicle ramp. There appear to be no civil details for the vehicle ramp. If additional information is available beyond what is provided in the structural drawings, please provide.

Answer: Change Keyed Note 9 to read "VEHICLE RAMP, SEE STRUCTURAL SHEET S140."

24. Question: Specification Section 033000.2.2.F calls for "Graylastic Elastomeric formliner by Fitzgerald Formliners" with a Random Depth Plank profile of .75 inch maximum depth. Upon visiting Fitzgerald's website we believe the design intent is pattern number 16920, Large Rustic Plank, Random Wood, Medium Grain Planks. Please confirm or clarify specified formliner.

Answer: The pattern for the Fitzgerald formliners is number 16938 and is shown on p. 2 of the Wooden Plank type formliners on the Fitzgerald's website.

25. Question: Refer to elevation sheets A201 through A205. Please clarify concrete formliner orientation on all structures.

Answer: Concrete form liner should run in the vertical direction throughout the base Building and the ATCT.

26. Question: Refer to keyed note 14 on drawings A203 & A204. Please confirm "inside corner" means the corner closest to the core and not the corner on the outermost edge of the concrete fin.

Answer: Yes inside corner refers to the corner closest to the ATCT core.

27. Question: Refer to Specification Section 033000.2.7. Please confirm that horizontal construction joints similar to detail B6/S004 is the only location waterstop applies to this project or clarify where Waterstops apply to this project.

Answer: Detail B6/S004 applies to the walls of the Base Building and ATCT. The PVC type water stop is shown on Section C6/S501. Add note to F2/S510: "See B6/S004 for water stop at construction joint"

28. Question: Refer to drawing C616. Equipment pads for the exterior equipment items on this drawing do not appear to be in the project documents. Please confirm all these equipment items require a 12" thick equipment pad similar to detail B4/S004 or clarify design intent.

Answer: The detail B4/S004 is to be used for all equipment pads shown on drawing C616 with the exception of the fuel tanks as indicated in the electrical and mechanical specifications.

29. Question: Refer to construction joint details G7/S004 and F8/S510. Please confirm that detail G7/S004 applies to all structures not including the ATCT and that detail F8/S510 applies only to the ATCT.

Answer: Correct.

30. Question: Keynote 15 on drawing A307 refers to detail A5/A505 for information on the stainless steel halo ring, however detail A5/A505 doesn't address the halo ring. In addition, detail D3/A503, referenced in section A6/A307, refers to detail C5/A505 for information on the halo ring; C5/A505 doesn't address the halo ring either. Please provide design information relative to the halo ring and clarify detail call outs.

Answer: Change Detail Callout on sheet A307 from A5/A505 to C5/A505. Detail C5/A505 shows the location and identifies the parts of the 'halo ring' and refers to structural for additional information. See Structural Detail D3/S532. See also question 32.

31. Question: Refer to the door schedule, beginning on drawing A609. All HM frames are shown as unfinished; is that correct?

Answer: Refer to Specification Section 08 11 13 pg 8; 2.9 Steel Finishes

32. Question: In reviewing the structural drawings it appears there is sufficient information to price the halo ring, but the structural drawings appear to detail the ring as a segmented structure, as opposed to a true ring, and show the ring and related material as structural steel, not stainless. Please clarify which components of the ring are to be stainless, if any.

Answer: All components are to be Stainless Steel. The 'ring' is actually a segmented structure as shown in the structural drawings.

33. Question: Paragraph 1.4 QUALITY ASSURANCE , Sub Paragraph A Installer Qualifications,
A qualified installer who participates in the AISC Quality Certification Program and is designated an AISC Certified Erector, Category CASE. The above noted Category CASE does not exist, the correct designation for an Advanced Certified Steel Erector is ACSE. It is our understanding the primary criteria involved for a Certified Steel Erector (CSE) to receive an Advanced Certification (ACSE) is predicated on 1.) Lead Abatement Procedures, 2.) Bridge Structure Modifications, and 3.) Rivet Removal. Accordingly, we request the Specifications be ammended to allow an AISC CSE (Certified Steel Erector) work on this Project.

Answer: The reference to CASE was incorrect and should have been ACSE; however, the requirement will be changed to AISC CSE for this project because the higher level of certification is not required.

34. Question: RE Metal Lockers 10 51 13

Page 3 A 1,2,3 All 3 manufacturers make both knock down lockers and all welded lockers
The question is "What do they want"?
Page 3 B 1 PCE Manufacturer; Cambio S6000 Z Door locker. Elevation drawings show a Z type locker
This is a Laminate Door manufactured in California and the body is steel made in Europe, none of the American locker manufacturers have ever seen this locker

Page 5 C states "Knocked-Down Construction"
Page 5 D states "All-Welded Construction"
Page 5 J states "Continuous Sloping Top"
Page 5 K states "Individual Sloping Tops"
Page 5 I & J Bases on All-Welded lockers are part of the Lockers they add 4" to the overall height.

It is impossible to bid unless the specification is revised.

Answer:
Spec section 10 51 13 Metal Lockers;
Pg 3 para 2.2.B.1: Delete: PCE Manufacturer; Change to: Penco; All-welded 6WP231 with Standard Louver. Size of lockers 15" wide x 21" deep x 72" high; two tier.
Provide:
2nd Level of the Base Bldg: 36 standard + 2 HC
3rd level of the Base Bldg: 88 standard + 5 HC
19th Level of the ATCT: 60 standard

Pg 5 para 2.4.C: Delete: Item C - Knocked down construction
Pg 5 para 2.4.K: Delete: Item K - Individual sloping tops.

<<<END OF AMENDMENT>>>

SECTION 10 20 00 - LOUVERS AND VENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Fixed, extruded-aluminum louvers.

B. Related Sections include the following:

1. Division 7 Section "Joint Sealants" for sealants installed in perimeter joints between louver frames and adjoining construction.

1.3 DEFINITIONS

A. Louver Terminology: Definitions of terms for metal louvers contained in AMCA 501 apply to this Section unless otherwise defined in this Section or in referenced standards.

B. Drainable-Blade Louver: Louver with blades having gutters that collect water and drain it to channels in jambs and mullions, which carry it to bottom of unit and away from opening.

1.4 PERFORMANCE REQUIREMENTS

A. Structural Performance: Provide louvers capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated without permanent deformation of louver components, noise or metal fatigue caused by louver blade rattle or flutter, or permanent damage to fasteners and anchors. Wind pressures shall be considered to act on vertical projection of louvers.

1. Wind Loads: Determine loads based on pressures as indicated on Structural Drawings.
2. Impulse Loads: Coordinate impulse loads with GSA requirements as indicated in Division 8 Section “Window Specifications for Blast Loading”.

B. Thermal Movements: Provide louvers that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

C. Air-Performance, Water-Penetration, Air-Leakage, and Wind-Driven Rain Ratings: Provide louvers complying with performance requirements indicated, as demonstrated by testing manufacturer's stock units identical to those provided, except for length and width according to AMCA 500-L.

D. Airborne Sound Transmission Loss: Provide acoustical louvers complying with airborne sound transmission loss ratings indicated, as demonstrated by testing manufacturer's stock units identical to those specified, except for length and width according to ASTM E 90.

1.5 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: For louvers and accessories. Include plans, elevations, sections, details, and attachments to other Work. Show blade profiles, angles, and spacing.

1. For installed louvers indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
2. Wiring Diagrams: Power, signal, and control wiring for motorized adjustable louvers.

C. Samples for Initial Selection: For units with factory-applied color finishes.

D. Samples for Verification: For each type of metal finish required.

E. Qualification Data: For professional engineer.

F. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency or by manufacturer and witnessed by a qualified testing agency, for each type of louver.

1.6 QUALITY ASSURANCE

A. Source Limitations: Obtain louvers through one source from a single manufacturer where indicated to be of same type, design, or factory-applied color finish.

B. Welding: Qualify procedures and personnel according to the following:

1. AWS D1.2, "Structural Welding Code--Aluminum."
2. AWS D1.3, "Structural Welding Code--Sheet Steel."

C. SMACNA Standard: Comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" for fabrication, construction details, and installation procedures.

D. UL and NEMA Compliance: Provide motors and related components for motor-operated adjustable louvers that are listed and labeled by UL and comply with applicable NEMA standards.

1.7 PROJECT CONDITIONS

A. Field Measurements: Verify louver openings by field measurements before fabrication and indicate measurements on Shop Drawings.

1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish opening dimensions and proceed with fabricating louvers without field measurements. Coordinate construction to ensure that actual opening dimensions correspond to established dimensions.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Designed based on Ruskin Co., subject to compliance with requirements, provide products by one of the following:

1. Louvers:

a. Airline Products Co.
b. Airolite Company (The).
c. American Warming and Ventilating, Inc.
d. Arrow United Industries.
e. Carnes Company, Inc.
f. Dowco Products Group; Safe-Air of Illinois, Inc.
g. Greenheck.
h. Industrial Louvers, Inc.
i. Louvers & Dampers, Inc.
j. Metal Form Manufacturing Company, Inc.
k. Reliable Products; Hart & Cooley, Inc.
l. Ruskin Company; Tomkins PLC.
m. Vent Products Company, Inc.

2.2 MATERIALS

A. Aluminum Extrusions: ASTM B 221 (ASTM B 221M), alloy 6063-T5 or T-52.

B. Aluminum Sheet: ASTM B 209 (ASTM B 209M), alloy 3003 or 5005 with temper as required for forming, or as otherwise recommended by metal producer for required finish.

C. Aluminum Castings: ASTM B 26/B 26M, alloy 319.

D. Fasteners: Of same basic metal and alloy as fastened metal or 300 Series stainless steel, unless otherwise indicated. Do not use metals that are incompatible with joined materials.

1. Use types and sizes to suit unit installation conditions.
2. Use Phillips flat-head screws for exposed fasteners, unless otherwise indicated.

E. Postinstalled Fasteners for Concrete and Masonry: Torque-controlled expansion anchors, made from stainless-steel components, with capability to sustain, without failure, a load equal to 4 times the loads imposed, for concrete, or 6 times the load imposed, for masonry, as determined by testing per ASTM E 488, conducted by a qualified independent testing agency.

F. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.

2.3 FABRICATION, GENERAL

A. Assemble louvers in factory to minimize field splicing and assembly. Disassemble units as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.

B. Vertical Assemblies: Where height of louver units exceeds fabrication and handling limitations, fabricate units to permit field-bolted assembly with close-fitting joints in jambs and mullions, reinforced with splice plates.

1. Continuous Vertical Assemblies: Fabricate units without interrupting blade-spacing pattern.
2. Horizontal Mullions: Provide horizontal mullions at joints.

C. Maintain equal louver blade spacing, including separation between blades and frames at head and sill, to produce uniform appearance.

D. Maintain equal louver blade spacing to produce uniform appearance.

E. Fabricate frames, including integral sills, to fit in openings of sizes indicated, with allowances made for fabrication and installation tolerances, adjoining material tolerances, and perimeter sealant joints.

1. Frame Type: Channel, unless otherwise indicated.

F. Include supports, anchorages, and accessories required for complete assembly.

G. Provide vertical mullions of type and at spacings indicated, but not more than recommended by manufacturer, or 72 inches (1830 mm) o.c., whichever is less.

1. Fully Recessed Mullions: Where indicated, provide mullions fully recessed behind louver blades. Where length of louver exceeds fabrication and handling limitations, fabricate with close-fitting blade splices designed to permit expansion and contraction.
2. Semirecessed Mullions: Where indicated, provide mullions partly recessed behind louver blades so louver blades appear continuous. Where length of louver exceeds fabrication and handling limitations, fabricate with interlocking split mullions and close-fitting blade splices designed to permit expansion and contraction.

3. Exposed Mullions: Where indicated, provide units with exposed mullions of same width and depth as louver frame. Where length of louver exceeds fabrication and handling limitations, provide interlocking split mullions designed to permit expansion and contraction.
4. Exterior Corners: Prefabricated corner units with mitered and welded blades and with mullions at corners.

H. Join frame members to each other and to fixed louver blades with fillet welds concealed from view, unless otherwise indicated or size of louver assembly makes bolted connections between frame members necessary.

I. Join frame members to each other and to fixed louver blades with fillet welds, threaded fasteners, or both, as standard with louver manufacturer, concealed from view, unless otherwise indicated or size of louver assembly makes bolted connections between frame members necessary.

2.4 FIXED, EXTRUDED-ALUMINUM LOUVERS

A. Horizontal, Drainable-Blade Louvers

1. Basis-of-Design Product: Ruskin Co..
2. Louver Depth: 6 inches (150 mm).
3. Frame and Blade Nominal Thickness: As required to comply with structural performance requirements, but not less than 0.080 inch (2.0 mm).
4. Mullion Type: Exposed.
5. Performance Requirements:

    a. Free Area: Not less than 8.0 sq. ft. (0.74 sq. m) for 48-inch- (1.2-m-) wide by 48-inch- (1.2-m-) high louver.
    b. Point of Beginning Water Penetration: Not less than 1250 fpm (6.4 m/s).
    c. Air Performance: Not more than 0.10-inch wg (25-Pa) static pressure drop at 800-fpm (4.1-m/s) free-area velocity.

6. AMCA Seal: Mark units with AMCA Certified Ratings Seal.

2.5 FINISHES, GENERAL

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Finish louvers after assembly.

2.6 ALUMINUM FINISHES

A. Finish designations prefixed by AA comply with system established by the Aluminum Association for designating aluminum finishes.

B. Class I, Color Anodic Finish: AA-M12C22A42/A44 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, integrally colored or electrolytically deposited color coating 0.018 mm or thicker) complying with AAMA 611.

1. Color: As selected by Architect from the full range of industry colors and color densities.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and openings, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Coordinate setting drawings, diagrams, templates, instructions, and directions for installation of anchorages that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to Project site.

3.3 INSTALLATION

A. Locate and place louvers level, plumb, and at indicated alignment with adjacent work.

B. Use concealed anchorages where possible. Provide brass or lead washers fitted to screws where required to protect metal surfaces and to make a weathertight connection.

C. Form closely fitted joints with exposed connections accurately located and secured.

D. Provide perimeter reveals and openings of uniform width for sealants and joint fillers, as indicated.

E. Repair finishes damaged by cutting, welding, soldering, and grinding. Restore finishes so no evidence remains of corrective work. Return items that cannot be refinished in the field to the factory, make required alterations, and refinish entire unit or provide new units.

F. Protect galvanized and nonferrous-metal surfaces from corrosion or galvanic action by applying a heavy coating of bituminous paint on surfaces that will be in contact with concrete, masonry, or dissimilar metals.

G. Install concealed gaskets, flashings, joint fillers, and insulation as louver installation progresses, where weathertight louver joints are required. Comply with Division 7 Section "Joint Sealants" for sealants applied during louver installation.

3.4 ADJUSTING AND CLEANING

A. Test operation of adjustable louvers and adjust as needed to produce fully functioning units that comply with requirements.

B. Clean exposed surfaces of louvers and vents that are not protected by temporary covering, to remove fingerprints and soil during construction period. Do not let soil accumulate until final cleaning.

C. Before final inspection, clean exposed surfaces with water and a mild soap or detergent not harmful to finishes. Thoroughly rinse surfaces and dry.

D. Restore louvers and vents damaged during installation and construction so no evidence remains of corrective work. If results of restoration are unsuccessful, as determined by Architect, remove damaged units and replace with new units.

1. Touch up minor abrasions in finishes with air-dried coating that matches color and gloss of, and is compatible with, factory-applied finish coating.

END OF SECTION 10200